

MILINTRA KAWINKAMOLROJ, CHARINEE TRIWARANYU & SUMLEE THONGTHEW**COACHING PROCESS BASED ON TRANSFORMATIVE LEARNING THEORY FOR CHANGING THE INSTRUCTIONAL MINDSET OF ELEMENTARY SCHOOL TEACHERS****Abstract**

This research aimed to develop coaching process based on transformative learning theory for changing the mindset about instruction of elementary school teachers. Tools used in this process include mindset tests and questionnaires designed to assess the instructional mindset of teachers and to allow the teachers to reflect on how they perceive themselves and their role as educators. Additionally, in accordance with the transformative process, guidance is provided to improve their instructional mindset.

Because validation and verification are an essential aspect of the transformative process, the tests and questionnaires that were developed have been reviewed by nine experts resulting in a validity of 97% and 81%. The feedback and recommendations from the experts was applied to the improvement of the tests, questionnaires and teacher's guidance. The revised material was administered to seventy elementary school teachers, resulting in reliability scores of 76%, 82%, and 87%, demonstrating the tests' ability to separate the strong and weak teachers.

Consequently, it was found that a coaching process based on transformative learning theory for changing the mindset in instruction of elementary school teachers, implemented within the context of the teacher's own place of work through learning experiences, thorough thinking, best practices, and teacher's interaction, allowed them to change their mindset which was evidenced in their behaviors.

Key words: Coaching, Transformative learning theory, Mindset

Introduction

A major factor influencing students' learning is teacher quality (Akiba & Letendre, 2010, pp. 2018-2022). However, according to a study titled Teacher Development for Quality Learning conducted under the Thai Educational Reform Programme by Queensland University of Technology in Australia (Queensland University of Technology, 2002, p. 49), it was found that Thai teachers lack required knowledge and capabilities, in particular, concepts, principles, and processes relating to new instructional and learning approaches. An important requirement for teacher development is to change beliefs regarding teachers' performance. According to the analysis of the causes of instructional arrangement problems, it was also found that teachers tend to resist changing their instructional arrangement. This is consistent with Sinlarat (2001) who stated that teachers still rely on traditional instruction where the teacher monopolizes an instruction session, thus failing to adhere to new paradigms which promote students' self-learning.

In terms of a teacher's instructional arrangement, a teacher's instructional method is one of the key elements. If a teacher is able to apply various methods of

instruction to satisfy the needs and interests of the students, it will help students to achieve learning objectives, encourage the teacher to use their most effective instructional arrangements resulting in good academic performance by the students (Koyta, 2003).

Therefore, instructional arrangement which is a result of a teacher's thoughts and reflection which targets skills and abilities that are consistent with the students' natural attributes will lead to the identification of guidelines that will improve subject matter selection, instructional management, and assessment. If this sort of teacher's thought processes are continuously developed, it will provide a teacher with knowledge and understanding in terms of their professional role as teachers and in relevant social contexts as well (Brown & Grills, 1999).

There are two types of mindsets; they are (1) the fixed mindset which refers to a person who believes that a person's basic attributes, such as intelligence and talents, are unchangeable, and (2) the growth mindset which refers to a person with a growth and changeable mindset who believes that all everyone's attributes are changeable due to efforts and accumulated experiences, such as a person's notions, beliefs, attitudes, values, and knowledge, depending on environment and society (Dweck, 2006). A teacher with a fixed mindset may obstruct instructional arrangement because a teacher will resist changing and adjusting his/her instructional arrangement behaviors (Goldstein & Brooks, 2007, p. 2). This is consistent with a study conducted by Thailand Development Research Institute in 2012, finding that education reform would be impossible to enhance students' academic performance if there is no change in teachers' instructional behaviors (Economics Research and Training Center, 2012, p. 48).

It is strongly recommended that teachers improve their mindset towards instructional approaches. Consequently, elementary school teachers with fixed mindsets are required to develop new approaches which will enable them to have a better instructional arrangement process. As teachers with fixed mindsets believe that students' successes are a result of their gifts which are unchangeable, they will tend to use the same instructional approach with all students, regardless of individual uniqueness. Students' performance will vary depending on the type of learner each student. However, teachers with growth mindsets believe that student skills can be developed with time as they continue to learn new things (Goldstein & Brooks, 2007, p. 2).

According to an aforementioned study, there was an interesting concept which can be applied to adjust teachers' mindset, which was coaching, an implementation to enhance and develop teachers with knowledge, skills, and personal attributes in achieving the desired target of successful learning (Joyce & Showers, 1988 cite Costa & Garmston, 2002, p. 38). There was also a principle focusing on coaches, which are herein teachers with fixed mindset, to coach themselves or to learn how to improve and develop their instruction by themselves through an interaction between a coach and coaches as a medium to encourage flexible thinking, development, and to eventually lead to self-creating knowledge (Costa & Garmston, 2002, p. 31). This is also a way to stimulate and encourage teachers to realize their true capabilities in instructional arrangement. It also leads to continuous and limitless self-development (Maskey, 2009, p. 63) which will allow the creation of new attitudes, thoughts and

beliefs leading to continuous improvement in instructional arrangement (Zwart et al., 2008, p. 993).

However, the adjustment of teachers' mindset based on coaching principle has not been completely concluded. Other theories must be introduced to explain teachers' internal change as only one factor cannot sufficiently detail teachers' internal changes and cannot be concluded whether things happening to teachers are a direct result of coaching. Therefore, the adjustment of teachers' mindset cannot be guaranteed to experience continual improvement without proper coaching. Additionally, the researcher studies transformative learning theory of Mezirow (1997), stating that learning refers to a process that a person interprets and translates experiences into personally meaningful experiences and applies the principles learned in a practical basic manner. In short, once a teacher receives coaching, he/she will thoroughly consider based on his/her existing experience and knowledge to seek for strengths and weaknesses of what he/she did in comparison with coaching. Then, he/she will assess and make a decision and pick the most effective approach for his/her self-development. As for the process of considering thorough thinking and expanding one's ability through this coaching interpretation, Mezirow (1997) called it frames of references, which are an aspect of the educator's point of view, thinking patterns, thinking framework, belief systems, thinking systems, conclusions, and expectations which influence realization and meaning provisions of several experiences. Mezirow (1997) explains further that such frames of references will affect interpretation process from the use of previous experience to create new experience as a self-guide. The introduction of the new learning skills and the cumulative benefits of applying the transformative processes of the learning theory will help teachers to continuously adjust their mindset even though there is no longer coaching because the mindset adjustment is resulted from teachers' thorough thinking and consideration based on learning processes to adjustment and not from coaching only.

According to above-mentioned background and reasons, the researcher is interested in developing coaching processes based on transformative learning theory for changing the mindset in instruction of elementary school teachers further to develop teachers with fixed mindsets to a mature one and to enhance instructional quality.

Objective: To develop a coaching process based on transformative learning theory for changing the instructional mindsets of elementary school teachers.

Research Methodology

In this study, a multi-instrument research and development (R&D) approach has been applied. This research is divided into following phases.

Phase 1: Research and evaluate the condition of teachers' instructional arrangement

1. Study on instructional arrangement of elementary school teachers: To study the conditions of instructional arrangement resulting from teachers' mindset and identify any problems or weaknesses by collecting data from documents and articles, and by observing teachers' instruction within the context of their own work environment. The latter was conducted by observing and evaluating the thoughts and views of forty teachers in 2012 at various schools within the province of Chonburi located in Thailand.

2. Study on relevant information, thoughts, and theories for data analysis and synthesis: To study notions regarding mindset and teacher mindset in relation to instructional arrangement from both domestic and foreign documents, textbooks, articles, and researches (Dweck, 2006; Goldstein & Brooks, 2007; Sung, Kang & Liu, 2004). It was found that there are two types of mindsets, including the fixed mindset and the growth mindset. The key finding is that the mindset in instruction of a teacher refers to a set of concepts that a teacher has towards other relevant people and instructional arrangement approach, rooted from their knowledge, experience, attitude, and belief.

In this regard, the mindset in instruction of teachers includes (1) mindset towards relevant people in relation to instructional arrangement which is a teacher's concept or set of concepts towards capability, intelligence, and competency of relevant people in terms of instructional arrangement, (2) mindset towards instructional arrangement which is a teacher's concept or set of concepts towards roles and responsibilities, thoughts, approaches, and guidance for instructional arrangement which is expressed as a teacher's behavior during his/her instructional arrangement in class which is influenced by the individual's mindset towards relevant people and his/her mindset towards instructional arrangement.

In terms of coaching, coaching is used for organizing learning activities to successfully achieve the desired goals, focusing on coaches (Blanchard & Thacker, 2004, p. 268; Knight, 2004, pp. 34-35) which are teachers herein, to be able to coach themselves or learn to improve and develop their instruction by themselves through interaction between a coach and them, as a medium to encourage thinking, development, and to lead to the creation of internal knowledge.

In terms of transformative learning theory (Mezirow, 1997), this theory defines that learning refers to a process that a person interprets or translates his/her existing experience into experience meaning and practical implementation. As for process in considering, thoroughly thinking, and expanding this coaching interpretation, it is called frames of references, which are an aspect of meaning provision, thinking pattern, thinking framework, belief, thinking system, mind conclusion, and expectation influencing realization and meaning provision of several experiences a person.

3. Determination of research framework: According to a study on condition and problem of instructional arrangement resulted from teachers' mindset and relevant documents and researches, the researcher can define a conceptual framework for this research.

Phase 2: Research and development of coaching process based on transformative learning theory for changing the mindset in instruction of elementary school teacher

In this phase, the researcher processes data acquired from Phase 1 of the study to analyze as basic information to draft a procedure. The five steps are as follows:

1. Study and analyze data gained from Phase 1: The researcher synthesized principles of coaching process based on transformative learning theory for changing the mindset in instruction of elementary school teachers.

2. Determination of process elements: the researcher determined process elements by studying relevant documents and researches related to process development. Consequently, key elements of process include its principles, characteristics, contents, processes, as well as evaluation and assessment.

3. Determination of implementation steps: From the determined principles, the researcher determines implementation steps of the process which can be divided into 3 phases: preparation, implementation, and evaluation.

4. Drafting procedure manual: The researcher prepares a procedure manual including step-by-step activities that are in accordance with the objective of transformation and applies them to the coaching process. The coaching process and the manual are reviewed and verified by 5 experts in terms of validity. Consequently, it was found that procedure details and supporting documents had consistency index more than 0.50. All of the assessment items can be applied and coaching process can be revised as recommended.

5. Development of data collection tools: The researcher determines guidelines for developing tools in accordance with the research results as follows:

1) Tools used for collecting data regarding change of the mindset in instruction of elementary school teacher which was qualitative information. The tools were verified by 7 experts in terms of content validity and structure. All experts agreed on all questions and made some revisions on language used. The researcher revised accordingly and then used it for calculating Cronbach's Alpha to seek for reliability, including:

a. Mindset test: 4-level measurement questionnaires whether they are agreeable or non-agreeable at which certain level, including 20 questions. Reliability is equal to 0.76 with discrimination.

b. Teacher's instructional arrangement mindset tests:

- Mindset in instruction test: 5-level measurement questionnaires, including 42 questions. Reliability is equal to 0.82 indicating its ability to separate the strong from the weak teachers.
- Teachers' instructional arrangement guidance: behavioral assessment of teachers' performance in accordance with opinion items from the mindset in instruction test, including 30 questions with reliability at 0.87.

2) Qualitative tools including teachers' behavioral observation forms, individual interviews, self-assessment records, and teachers' learning logs.

Phase 3: Research for experiment of coaching process based on transformative learning theory for changing the mindset in instruction of elementary school teachers

The researcher applied such developed process (draft) to elementary school teacher for 1 semester to study and develop an appropriate process for implementation, as follows:

1. Determination of population and sample group: The sample group included 13 elementary school teachers: six from schools under the Office of the Basic Education Commission and seven from schools in elementary educational area 1 in Chonburi province. The experiment was conducted during the 2nd semester in 2014.

2. Experimentation of the developed process (draft):

a. Prepare a provisional process by studying and analyzing the preliminary information gathered from the sample group in the context of implementing educational institutions and by organizing meetings with school executives and teachers to coordinate and plan for improvements.

b. Follow steps under the provisional process. In this experiment, two coaches performed similar works but at different schools.

3. Data collection:

The data collected includes information from Part 1 regarding implementation conditions as information for improvement and development of data collection by observation, field logs, interviews, and information representing the change of the mindset in instruction of the elementary school teachers.

4. Data analysis:

a. Analyze data for improvement and development by analytic induction to create conclusions based on data collection, as well as content analysis and data illustrations.

b. Analyze data from the processes, applications, and outcomes which contribute to the change of the instructional mindset of the teachers.

Phase 4: Improvement and development of coaching process based on transformative learning theory for changing the mindset in instruction of elementary school teachers (final)

The researcher assessed the change of the mindset in instruction of elementary school teachers based on their coaching process by using mindset tests and instructional arrangement questionnaires developed, as well as assessment from teachers' opinion interviews which serve as verification of the knowledge gained from their participation in the study. In addition, the teachers' thoughts and feeling during their participation in the study are taken into account. Based on the evaluation criteria, the researcher reports on the process and makes recommendations for improvements as specifications of outcomes in various areas.

Results

The developed coaching process based on transformative learning theory for changing the mindset of instruction of elementary school teachers had key concepts, principles, content, steps, and duration as follows:

Concepts

Coaching process from learning to change is a process in changing the mindset of instruction for teachers by learning through experience, thorough thinking, best practices, and interaction between teachers and relevant parties, causing teachers to change their mindset and expression into good behaviors under a coach's support in providing help and organizing activities throughout the learning process.

Principles

1. Mutual interaction between a coach and teacher, or a teacher and his/her peer will lead to teacher's learning.

2. Open-mindedness of the teachers to accept internal changes will create individual self-recognition by objective self-evaluation in order to assess both personal and professional outcomes and the reasons for them.

3. Creation of internal forces that push for internal change and an increase in teacher's motivation for learning leads to positive behavioral changes.

4. Problem solving by discussing past experience with others leads to new findings and improves a person's internal and external problem solving skills. It also provides an opportunity to learn how develop new problem solving techniques thus leading to internal change.

5. Self-direction to achieve desired targets for changing is resulted from self-thinking process which will lead to sustainable change. Therefore, change must

begin from one's internal feeling and habitually repeated until it gains acceptance and becomes regular practice.

6. Information exchange through mutual experiences leads to concrete solutions and practices.

Process characteristics

1. Learning and content activity
2. Group meeting
3. Coaching activity
4. Practical implementation

Content

Process content for elementary instructional arrangement includes elementary instructional arrangement, elementary student development, instructional approach learning theory, etc.

Process steps

There are 3 phases of process compliance as follows:

Phase 1: Pre-coaching

Prepare participants to create relationship between a coach and teachers for building up mutual trust between a coach and coaches and for knowing mindset base of participants by studying instructional arrangement condition of teachers and by observing instruction to determine coaching guidelines.

Phase 2: Coaching for learning

It is an implementation for promoting participants' self-internal change by having a coach to support without instructing or guiding the teachers, including 5 following steps: self-recognition, openness to new experience, self-comparative assessment, creating new mindset, and promoting new teachers' mindset and apply it to instructional arrangement. This is to allow teachers to immerse themselves in their working lifestyles, to encourage reflection, and associate it to their instructional arrangement and their entire life.

Phase 3: Post-coaching conclusion and evaluation

Make a conclusion how the implementation outcomes were and evaluate coaching based on the collected test once again to determine coaching guidelines further, as well as collect thoughts to synthesize lessons which will lead teachers to his/her desired target.

Process Duration

Coaching process can be done in parallel with work in terms of instructional context for approximately 16 weeks. Then, it can be continued further to create sustainable mindful change and to confirm the teachers' changed behaviors are derived from teachers' instructional mindset. Duration can be appropriately adjusted according to the teachers' institutional context.

Recommendations

1. Enhance teachers' self-reflection and motivation for internal change by posing appropriate questions.

2. Attentive listening and listening with interest will relax teachers. Teachers should listen carefully to understand other people's feelings. Teachers' thoughts or feeling should not be judged.

3. Positive language should be used, reflective opinions and creativity should be supported to provide useful aspects and thoughts and to attract participants to apply them to their own circumstances.

4. Creation of motivation and moral support is important to stimulate coaches with self-confidence in passing through obstacles of change.

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